

Amendments to the Claims

Please amend claims 39-43, 49, 51, 56, 57, 59-61, and 67-69 as shown below.

Please cancel claim 50

Listing of Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-38 (Cancelled).

39. (Currently amended) An apparatus comprising:

- a) a rendering engine for ~~rendering~~ printing images onto a medium;
- b) an input port for receiving raw image data including binary image data for a plurality of images; and
- c) a print preview projection mechanism for converting the received binary image data into corresponding displayable image data for the plurality of images and for projecting the displayable image data for viewing by a user, the print preview projection mechanism including
 - ~~a multiple image manipulation module~~ an image editor to receive raw image data and user input and, based thereon, to generate a composite image file for the plurality of images; and
 - a projection mechanism responsive to user input to project a preview image onto a surface based on one of the raw image data and the composite image file.

40. (Currently amended) The apparatus of claim 39 wherein the print preview projection mechanism provides the user with a preview of one or more image to be ~~rendered~~ printed of the plurality of images defined by the binary image data prior to ~~rendering~~ printing of the images image data; and wherein the print preview projection mechanism includes a display format mechanism for converting the received binary image data for the plurality of images into the corresponding displayable image data for the plurality of images.

41. (Currently amended) The apparatus of claim 39 wherein the ~~print preview projection mechanism comprises a~~ projection mechanism for projecting comprises a light source and optics to project the displayable image data for the ~~plurality of images~~ preview image onto a two-dimensional surface; and wherein the projected preview image is a two-dimensional image.

42. (Currently amended) The apparatus of claim 39 wherein the ~~print preview projection mechanism comprises a~~ projection mechanism for projecting comprises a light source and optics to project the displayable image data for the ~~plurality of images~~ preview image into a three-dimensional space; and wherein the projected preview image is one of a two-dimensional image and a three-dimensional image.

43. (Currently amended) The apparatus of claim 39 wherein the image editor ~~manipulation application~~ supports one of the user interface functions selected from the group consisting of: editing operations, compositing operations, image processing operations, delete operations and add operations and other image modification operations.

44. (Previously presented) The apparatus of claim 39 wherein the input port comprises one of a connection port, a media reader slot, and a receiver.

45. (Previously presented) The apparatus of claim 39 wherein the apparatus communicates with an image source through a communication link; and
wherein the image source provides the image data;
wherein the image source comprises one of a storage media, an image capture device, a digital camera, a personal communication device, a cellular telephone, a personal digital assistant, and other device external to the image rendering apparatus; and
wherein the communication link comprises one of a wireless link, a wired link, a USB cable, and a channel.

46. (Previously presented) The apparatus of claim 39 wherein the image data for the plurality of images comprises one of text data, a digital picture data, graphic data, drawing data and images.

47. (Previously presented) The apparatus of claim 39 wherein the apparatus comprises one of a printer, a facsimile machine, and an all-in-one office machine.

48. (Previously presented) The apparatus of claim 39 further comprising:
a plurality of switches for use by a user to control print preview functions and image editing functions; wherein each switch, when activated by the user, generates a signal representing user input; and wherein the signal is provided to the print preview projection mechanism.

49. (Currently amended) A method for rendering a composite image, the method comprising:
receiving binary image data from an external data source, the binary image data defining one or more images to be viewed or printed ~~rendered~~;
receiving first user input information selecting a page layout for multiple images;
receiving second user input information selecting images from the one or more images to be viewed or printed ~~rendered~~, the selected images to be arranged according to the selected page layout;
manipulating the binary image data to produce edited image data in response to the received first and second user input information;
converting the received binary image data and the edited image data for the selected images into corresponding displayable image data and displayable edited image data, respectively;
using the displayable edited image data to produce a composite image for viewing by a user; and
using the received binary image data to ~~render~~ print the one or more images to a medium,
or

using the edited image data to print the composite image onto a medium.

50. (Cancelled).

51. (Currently amended) The method of claim [[50]] 49 wherein manipulating the binary image data comprises editing operations, compositing operations, image processing operations, deleting operations and adding operations.

52. (Previously presented) The method of claim 49 wherein receiving the binary image data comprises receiving the binary image data through a communication link.

53. (Previously presented) The method of claim 52 wherein receiving the binary image data through a communication link comprises receiving the binary image data from one of a storage media, an image capture device, a digital camera, a personal communication device, a cellular telephone and a personal digital assistant.

54. (Previously presented) The method of claim 52 wherein receiving the binary image data through a communication link comprises receiving the binary image data over one of a wireless link, a wired link and a USB cable.

55. (Previously presented) The method of claim 52 wherein receiving the binary image data through a communication link comprises receiving one or more of text data, digital picture data, graphic data, drawing data and images.

56. (Currently amended) The method of claim 49 further comprising:
detecting actuation of one or more switches by the user; and
based on the detected actuation, generating a signal representing the received first and second user input information; and
in response to the signal, controlling one or more of
selecting the page layout,
selecting the images,

producing the composite image for viewing by the user, and
~~rendering~~ printing the composite image onto the medium.

57. (Currently amended) An image rendering apparatus comprising:

means for receiving binary image data from an external data source, the binary image
data defining one or more images to be viewed or printed ~~rendered~~;

means for receiving first user input information selecting a page layout for multiple
images;

means for receiving second user input information selecting images from the one or more
images to be viewed or printed ~~rendered~~, the selected images to be arranged
according to the selected page layout;

means for manipulating the binary image data to produce edited image data in response to
the received user input information;

means for converting the received binary image data and the edited image data for the
selected images into corresponding displayable image data and displayable edited
image data, respectively ~~for projecting a composite image for viewing by a user;~~

means for producing a composite preview image for viewing by a user using the
displayable edited image data; and

means for ~~rendering~~ printing the composite preview image onto a medium using the
displayable edited image data, or for printing the one or more images onto the
medium using the received binary image data based on the received first and
second user input information.

58. (Previously presented) The image rendering apparatus of claim 57 wherein the
means for receiving binary image data comprises one or more of a media reader, a connection
port for coupling to a cable, and a transceiver.

59. (Currently amended) The image rendering apparatus of claim 57 wherein the means
for converting the received binary image data comprises a multiple image manipulation module
to manipulate the received binary image data and, based on the received first and second user
input information, to generating a composite image file.

60. (Currently amended) A computer-readable medium tangibly embodying ~~comprising~~ computer-readable content to cause a computer to perform acts comprising [[of]]:

receiving binary image data from an external data source, the binary image data defining one or more images to be viewed or printed ~~rendered~~;

receiving first user input information selecting a page layout for multiple images;

receiving second user input information selecting images from the one or more images to be viewed or printed ~~rendered~~, the selected images to be arranged according to the selected page layout;

manipulating the binary image data to produce edited image data in response to the received user input information;

converting the received binary image data and the edited image data for the selected images into corresponding displayable image data and displayable edited image data, respectively ~~for projecting a composite image for viewing by a user;~~

using the displayable edited image data to produce a composite preview image for viewing by a user; and

using the received binary image data to ~~render~~ print the received binary image data to a medium, or

using the edited image data to print the composite preview image onto a medium.

61. (Currently amended) The computer-readable medium of claim 60 ~~further comprising~~ tangibly embodying computer-readable content to cause a computer to perform acts further comprising [[of]] manipulating the binary image data in response to received user input information prior to rendering the composite image.

62. (Previously presented) The computer-readable medium of claim 61 wherein manipulating the binary image data comprises editing operations, compositing operations, image processing operations, deleting operations and adding operations.

63. (Previously presented) The computer-readable medium of claim 60 wherein receiving the binary image data comprises receiving the binary image data through a communication link.

64. (Previously presented) The computer-readable medium of claim 63 wherein receiving the binary image data through a communication link comprises receiving the binary image data from one of storage media, an image capture device, a digital camera, a personal communication device, a cellular telephone and a personal digital assistant.

65. (Previously presented) The computer-readable medium of claim 63 wherein receiving the binary image data through a communication link comprises receiving the binary image data over one of a wireless link, a wired link and a USB cable.

66. (Previously presented) The computer-readable medium of claim 63 wherein receiving the binary image data through a communication link comprises receiving one or more of text data, digital picture data, graphic data, drawing data and images.

67. (Currently amended) The computer-readable medium of claim 60 ~~further comprising~~ tangibly embodying computer-readable content to cause a computer to perform acts further comprising ~~[[of]]~~:

detecting actuation of one or more switches by the user; and
based on the detected actuation, generating a signal representing user input information;
and
providing the signal to control one or more of producing the image for viewing by the user and rendering the image onto the medium.

68. (Currently amended) An image rendering apparatus comprising:
an input port configured to engage an external data source and to receive from the external data source binary image data defining a plurality of images to be printed rendered;

a print preview projection mechanism coupled to the input port and configured to convert the received binary image data to displayable image data, including an image editor to receive as raw image data the received binary image data defining the plurality of images ~~[[a]]~~ and produce edited image data in response to user editing input signals, the image editor including a multiple image manipulation module to receive the raw image data, the edited image data and user input and, based thereon, to generate a composite image file including the edited image data, and a displayable data generator to receive the raw image data and to generate displayable raw image data from the raw image data and to receive the edited image data and to produce displayable edited image data from the edited image data;

a projection mechanism responsive to one of the displayable raw image data and the displayable edited image data to ~~produce a display~~ project an image defined by the displayable raw image data or the displayable edited image data onto a surface for viewing by a user; and

a rendering engine coupled with the image editor to ~~render~~ print the image onto a medium using the edited image data.

69. (Currently amended) A method for printing ~~rendering~~ data which defines multiple images, the method comprising:

receiving binary image data from an external data source, the binary image data defining one or more images to be viewed or ~~rendered~~ printed;

prompting a user to select a page format or page layout;

prompting a user to place an image in a place holder of the selected page format or page layout;

if an edit command has been received from the user, performing one or more edit operations specified by the edit command on the received binary image data to produce edited image data;

otherwise, determining if another image is to be added to the selected page format or page layout;

if another image is to be added, retrieving binary image data for the other image;

retrieving binary image data to fill other place holders of the selected page format or page layout;

printing the one or more images onto a medium using the received binary image data; and
using the edited image data and the retrieved binary image data, rendering printing the
selected page format or page layout image including the multiple images onto a medium.